kadaster

Why Linked Data at Kadaster & PDOK? Status and Future

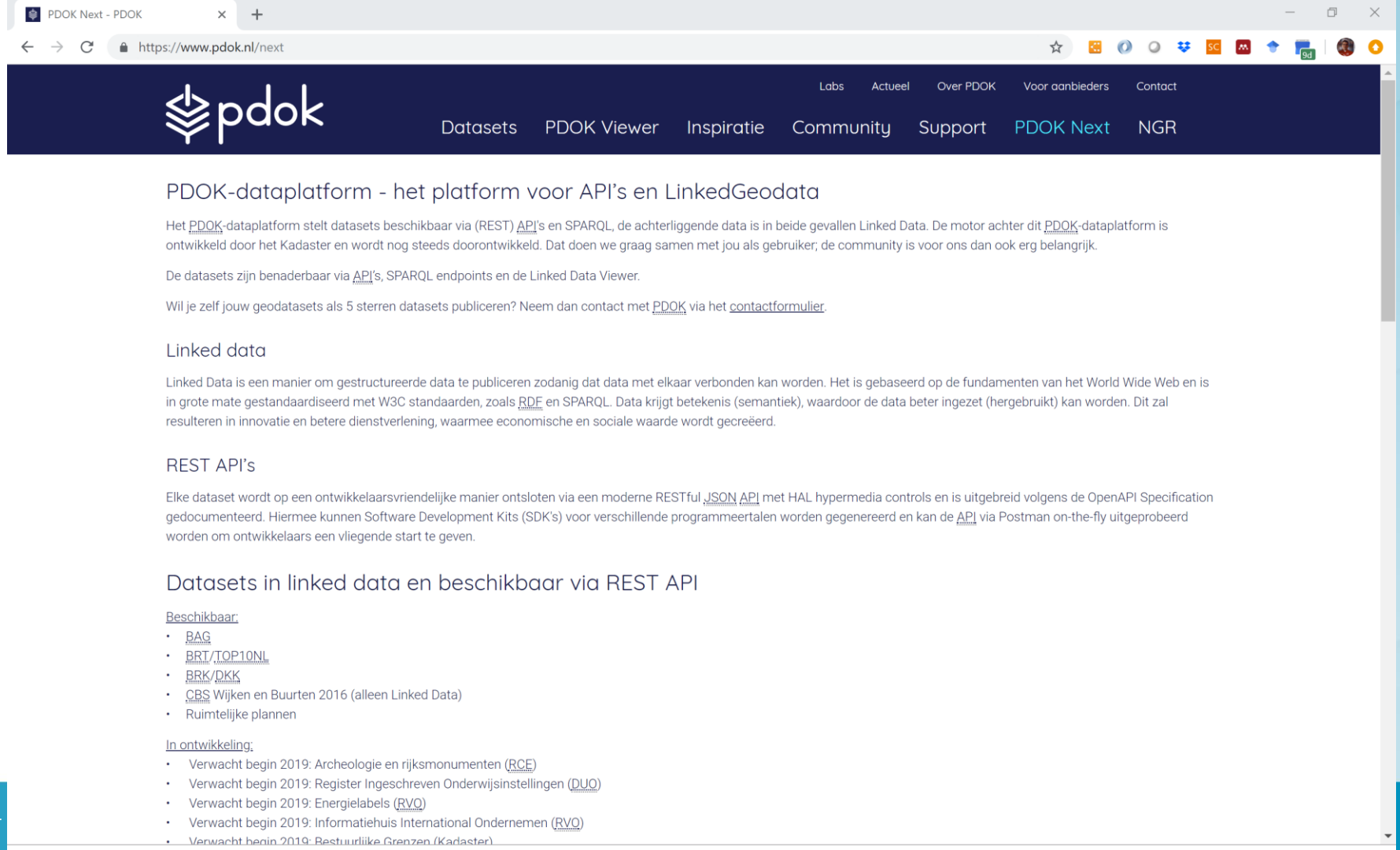
Erwin Folmer (Kadaster & University of Twente)

Why Linked Data for Kadaster?

- No more copying of data (or less)
- Highest semantic quality
- From data silo’s to connected information
- Developers friendly (in combination with APIs)
- Self Service GIS on the Web
- Fundament for Data Science

Cool, we have Linked Open Government Data!

- 3 key registers (such as addresses), statistics data, and more…. overview on: https://www.pdok.nl/next
- Part of the LOD Cloud Diagram go to https://lod-cloud.net/, click on the diagram, search for basisregistratie
- All Buildings have unique identifiers on the web!
  (see blog Ed Parsons, he asks others to do the same: https://www.edparsons.com/2017/09/cant-link-exist/
- Linked Data is a PDOK service
- APIs are succesfull


PDOK Next - PDOK
https://www.pdok.nl/next
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Over PDOK
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PDOK-dataplatform - het platform voor API's en LinkedGeodata
Het PDOK-dataplatform stelt datasets beschikbaar via (REST) API's en SPARQL, de achterliggende data is in beide gevallen Linked Data. De motor achter dit PDOK-dataplatform is ontwikkeld door het Kadaster en wordt nog steeds doorontwikkeld. Dat doen we graag samen met jou als gebruiker; de community is voor ons dan ook erg belangrijk.
De datasets zijn benaderbaar via API's, SPARQL endpoints en de Linked Data Viewer.
Wil je zelf jouw geodatasets als 5 sterren datasets publiceren? Neem dan contact met PDOK via het contactformulier.
Linked data
Linked Data is een manier om gestructureerde data te publiceren zodanig dat data met elkaar verbonden kan worden. Het is gebaseerd op de fundamenten van het World Wide Web en is in grote mate gestandaardiseerd met W3C standaarden, zoals RDF en SPARQL. Data krijgt betekenis (semantiek), waardoor de data beter ingezet (hergebruikt) kan worden. Dit zal resulteren in innovatie en betere dienstverlening, waarmee economische en sociale waarde wordt gecreëerd.
REST API's
Elke dataset wordt op een ontwikkelaarsvriendelijke manier ontsloten via een moderne RESTful JSON API met HAL hypermedia controls en is uitgebreid volgens de OpenAPI Specification gedocumenteerd. Hiermee kunnen Software Development Kits (SDK's) voor verschillende programmeertalen worden gegenereerd en kan de API via Postman on-the-fly uitgeprobeerd worden om ontwikkelaars een vliegende start te geven.
Datasets in linked data en beschikbaar via REST API
Beschikbaar:
BAG
BRT/TOP10NL
BRK/DKK
CBS Wijken en Buurten 2016 (alleen Linked Data)
Ruimtelijke plannen
In ontwikkeling:
Verwacht begin 2019: Archeologie en rijksmonumenten (RCE)
Verwacht begin 2019: Register Ingeschreven Onderwijsinstellingen (DUO)
Verwacht begin 2019: Energielabels (RVO)
Verwacht begin 2019: Informatiehuis International Ondernemen (RVO)

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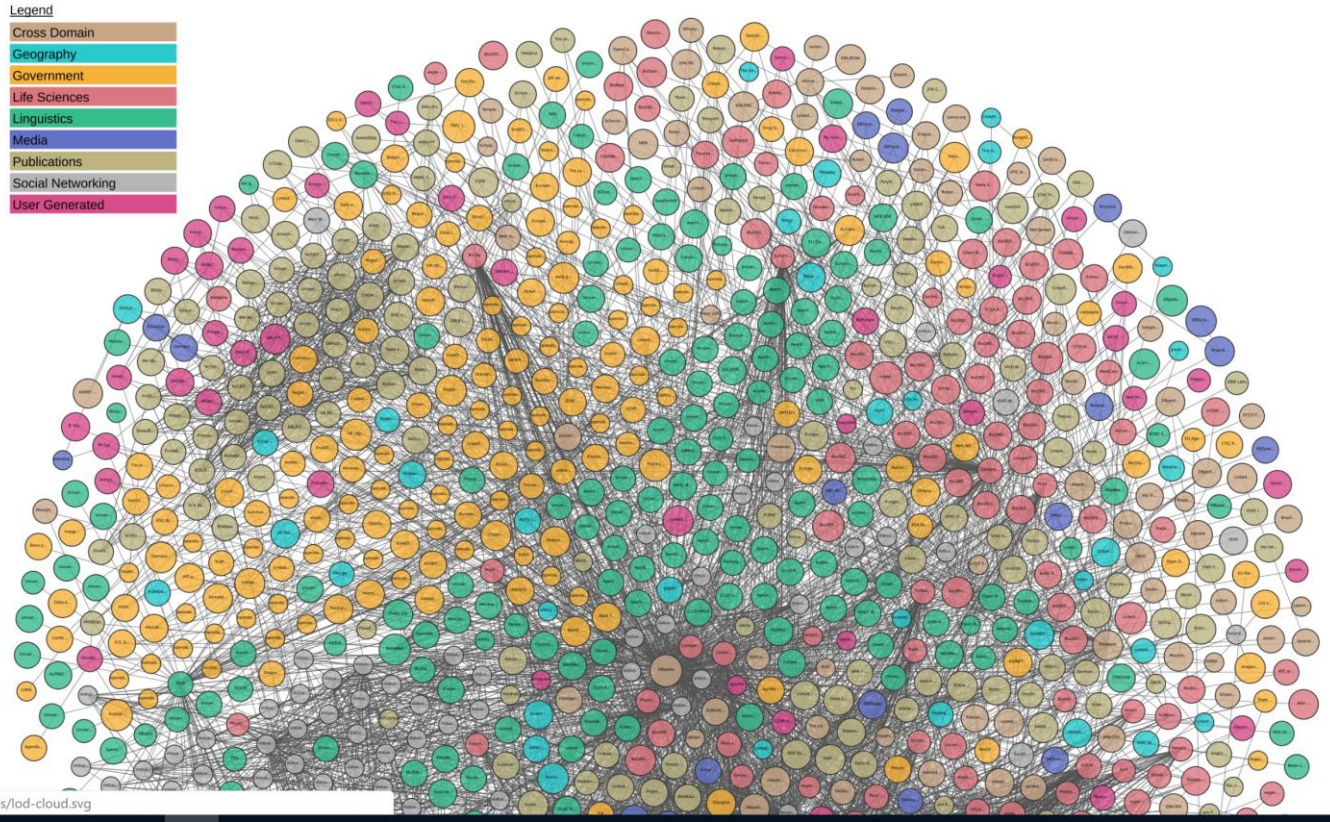
https://lod-cloud.net

Bookmarks | INSPIRE | NGR | WERK | Research backlog | PDOK/data.labs.pd... | PDOK Labs by PDOK | Workbook: Enschede | Workbook: Twekkel... | Off campus access | Andere bladwijzers

The Linked Open Data Cloud



https://lod-cloud.net/clouds/lod-cloud.svg

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Rather than publishing online a database of railway station locations in the Netherlands and expecting a user to then query the database for "Amsterdam Centraal Station", publish the database giving each record a URI so for example Amsterdam Centraal Station becomes;

https://brt.basisregistraties.overheid.nl/top10nl/id/gebouw/102625209

Now this is something I can paste into an email, tweet or even share on Facebook !

Kudos to the Dutch Kadaster for taking this approach and providing this example, Ordnance Survey you could do the same ?

This approach also results in such data becoming part of the "mainstream" web indexable and searchable, but I argue the key benefit is the "linkability"

The Spatial Data on the Web best practice document, something of course I recommend you taking a longer look at provides many excellent practical pointers to taking this type of approach.

Maybe really this is just an issue of semantics rather than publishing spatial data should we be talking about sharing spatial data ?

Share this:

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Het Kadaster wint prijs beste API overheid

15 februari 2019

Op 13 februari heeft het Kennisplatform API's de API van de Basisregistratie Adressen en Gebouwen (BAG) uitgeroepen tot beste API van de overheid.

Namens alle ontwikkelaars nam Janette Storm van het Kadaster het gouden aapje en de oorkonde in ontvangst.

Eervolle vermeldingen gingen naar de API's van de Kamer van Koophandel en het Luchtmeetnet.

Eenvoudig veelgevraagde BAG gegevens gebruiken

De door het Kadaster ontwikkelde BAG-API maakt het een stuk

Kadaster live chat

14:55

https://www.flickr.com/photos/138932346@N02/40015122103/in/album-72157703058746822/

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Platform Linked Data Ned... + Follow

DSC_0018

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Taken on January 31, 2019

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Less cool

- Search engine findability
- SPARQL endpoint limitations
- **The data is not connected**

Linked Data Tools

Needed to understand data and show potential of linked data sets and SPARQL

Five “tools” for Kadaster Data Platform:

1. Data Stories
2. FacetCheck
3. 3D SPARQL Query Result Visualizer (YASGUI)
4. *BI tool integration*
5. *SPARKLIS*

All of them are generic linked data tools: will work on any linked data set.

Accessible through: data.labs.pdok.nl

https://data.labs.pdok.nl/stories/pdok-kg/

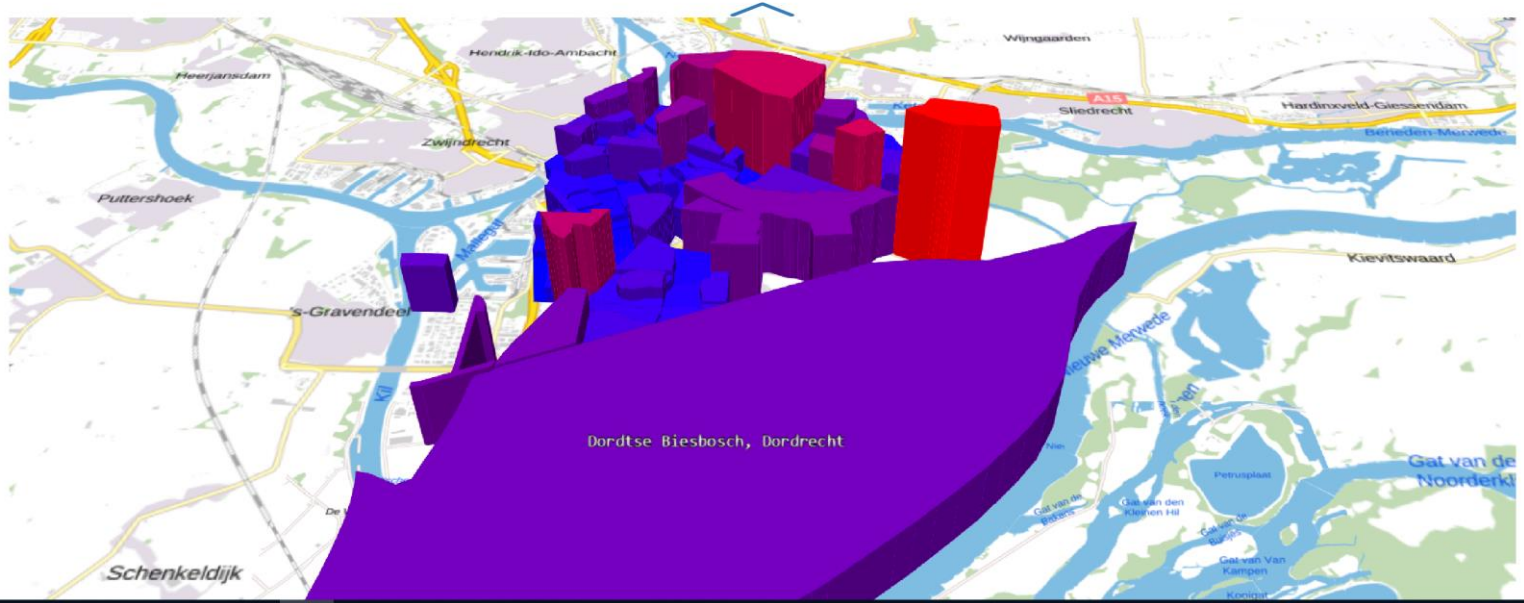
pdok Labs Data stories Publicaties Demo's Data Science Internships

Bevraging 1C: Kandidaat buurten in Dordrecht

Twee van de kandidaat buurten blijken in Dordrecht te liggen, dus laten we daar eens verder kijken. Dit zijn de buurten in Dordrecht met in de weergave hun gemiddelde woningwaardes. Deze waardes zijn afkomstig van het Centraal Bureau van de Statistiek (CBS).

Probeer het uit

In deze 3D omgeving zijn de kandidaat buurten weergegeven. De hoogte en kleur van de buurten duidt de hoogte van de gemiddelde woningwaarde aan. Door op de 3D objecten te klikken wordt de naam van de buurt getoond samen met de gemiddelde woningwaarde voor die buurt. Navigatie binnen de 3D omgeving functioneert door gebruik te maken van de muis en de `Ctrl` toets.



https://data.labs.pdok.nl/presentations/brt-browser/

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CLASS

- [x] Gebouw

HOOGTEKLASSE

- [ ] Laagbouw
- [ ] Hoogbouw

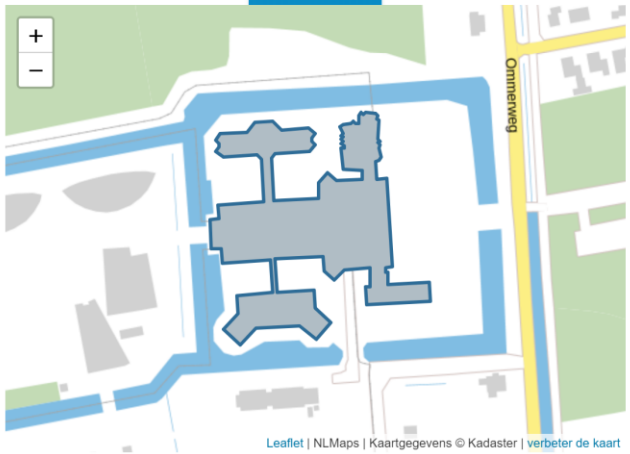
STATUS

- [ ] Buiten gebruik
- [x] In gebruik
- [ ] In uitvoering

SOORT GEBOUW

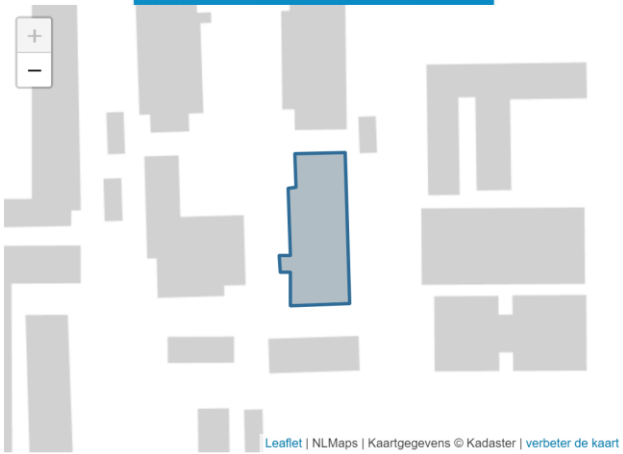
- [ ] Bezoekerscentrum
- [ ] Boortoren
- [ ] Brandtoren
- [ ] Brandweerkazerne
- [ ] Bunker
- [ ] Crematorium
- [ ] Dok
- [ ] Elektriciteitscentrale
- [ ] Fabriek
- [ ] Fort
- [ ] Gemaal
- [ ] Gemeentehuis
- [x] Gevangenis

Veldzicht



Properties

Penitentiaire Inrichting Tilburg



Properties

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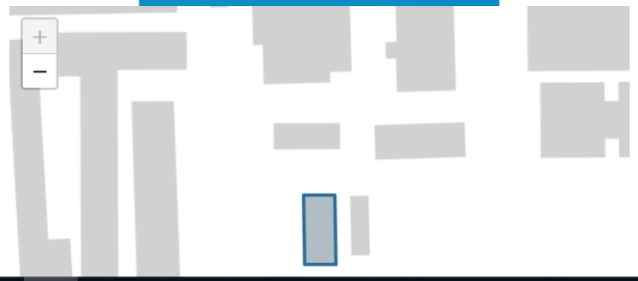

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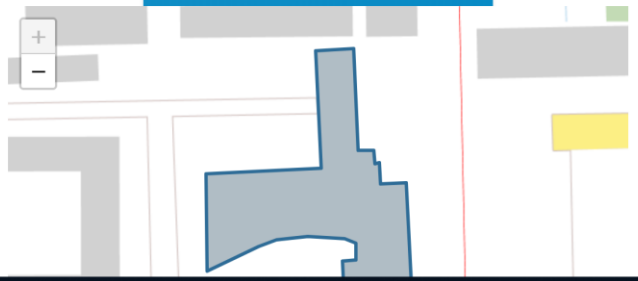

https://data.labs.pdok.nl/stories/kkg/

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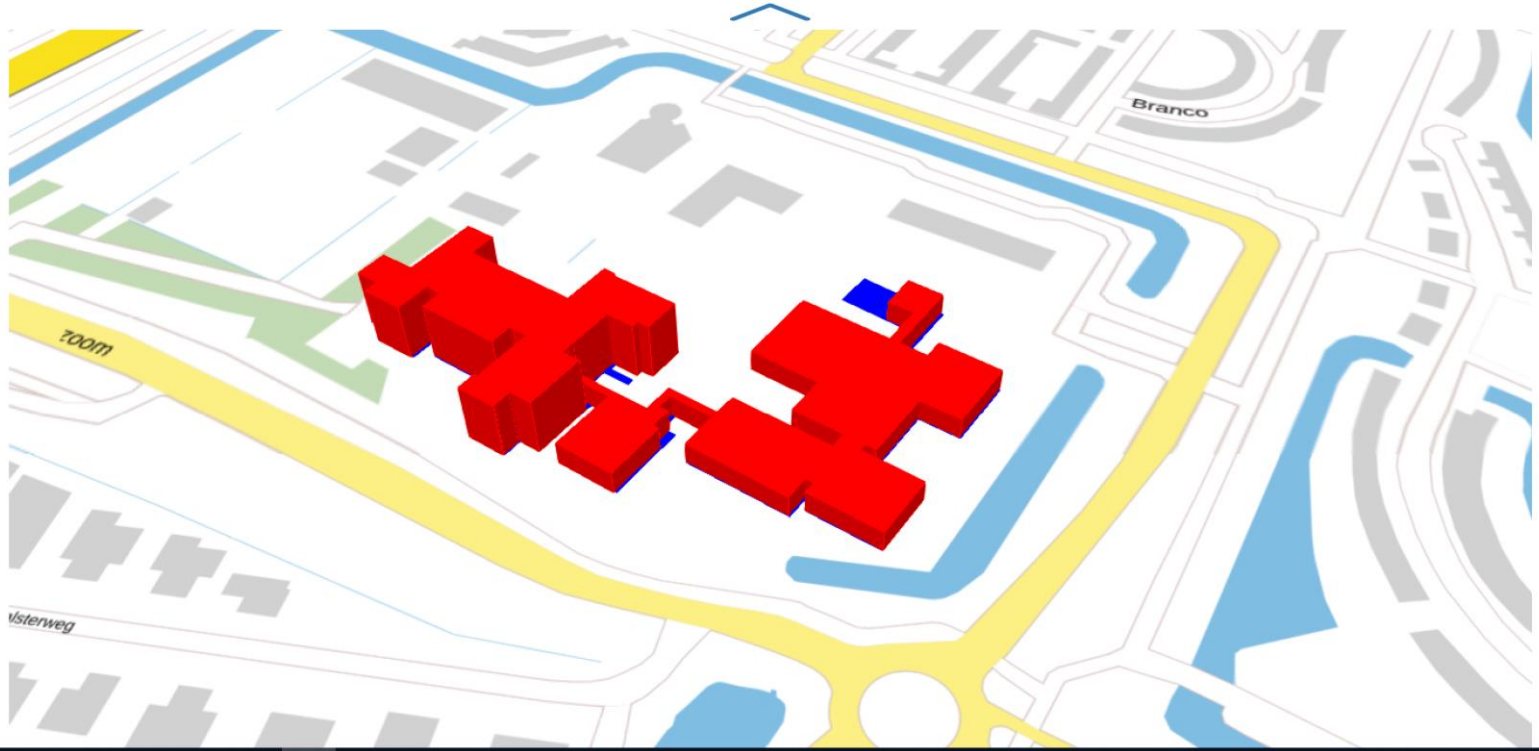
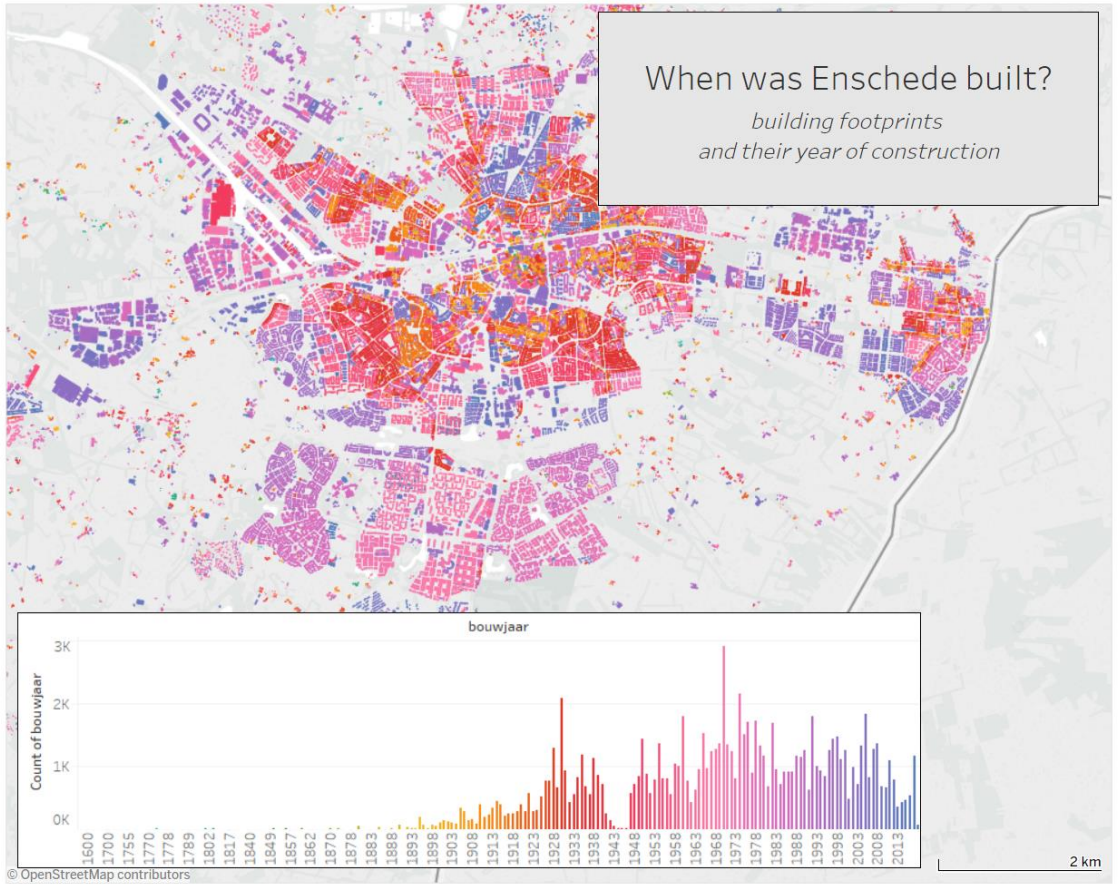
pdok Labs

Data stories | Publicaties | Demo's | Data Science | Internships

Leaflet | NLMaps | Kaartgegevens © Kadaster | verbeter de kaart

BAG pand & BRT school




When was Enschede built?
building footprints
and their year of construction
bouwjaar
Count of bouwjaar
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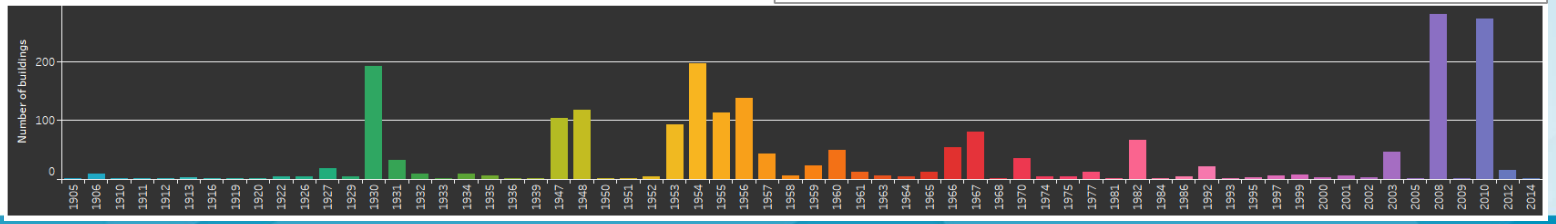
Integratie met BI tools



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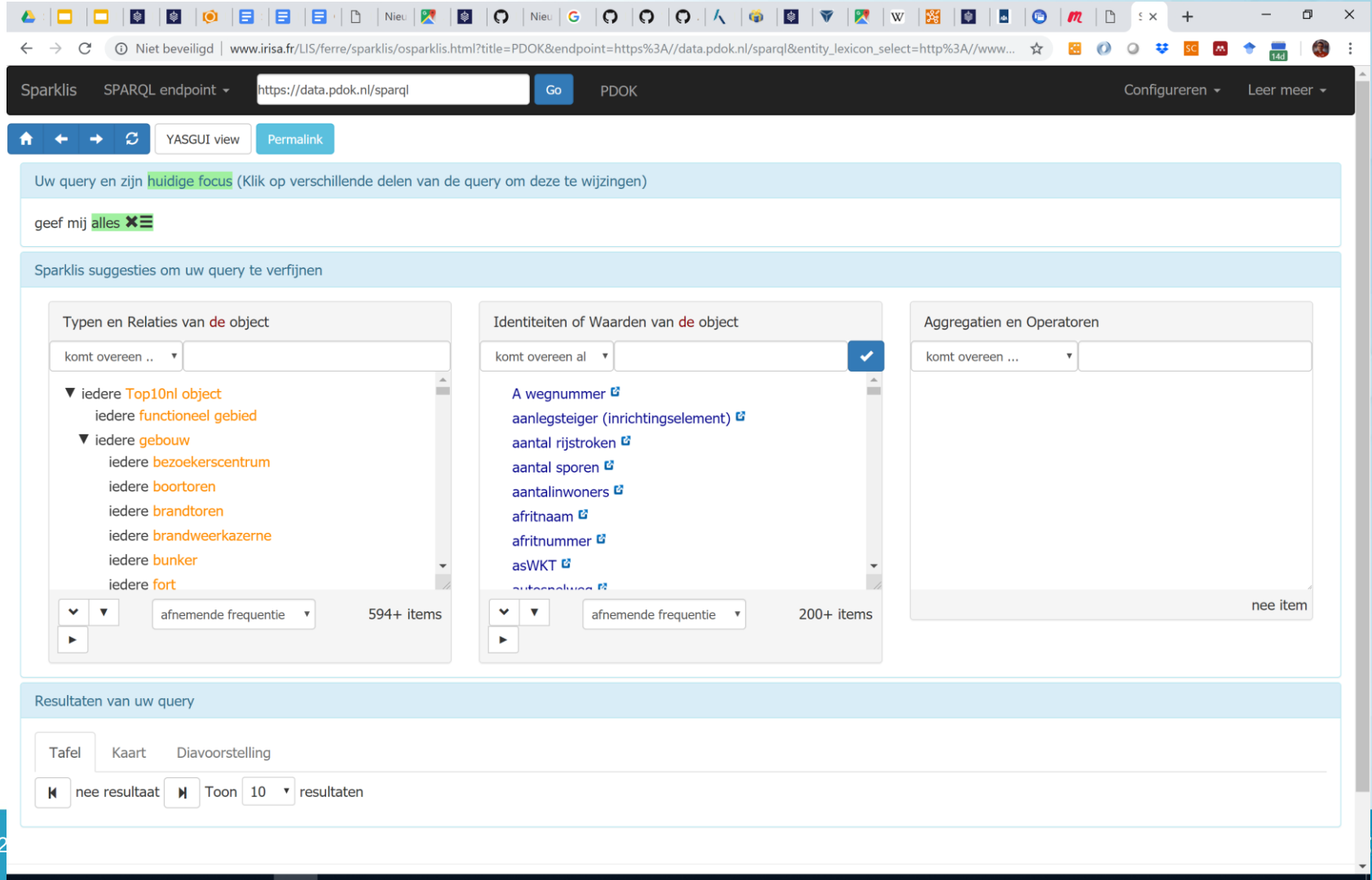
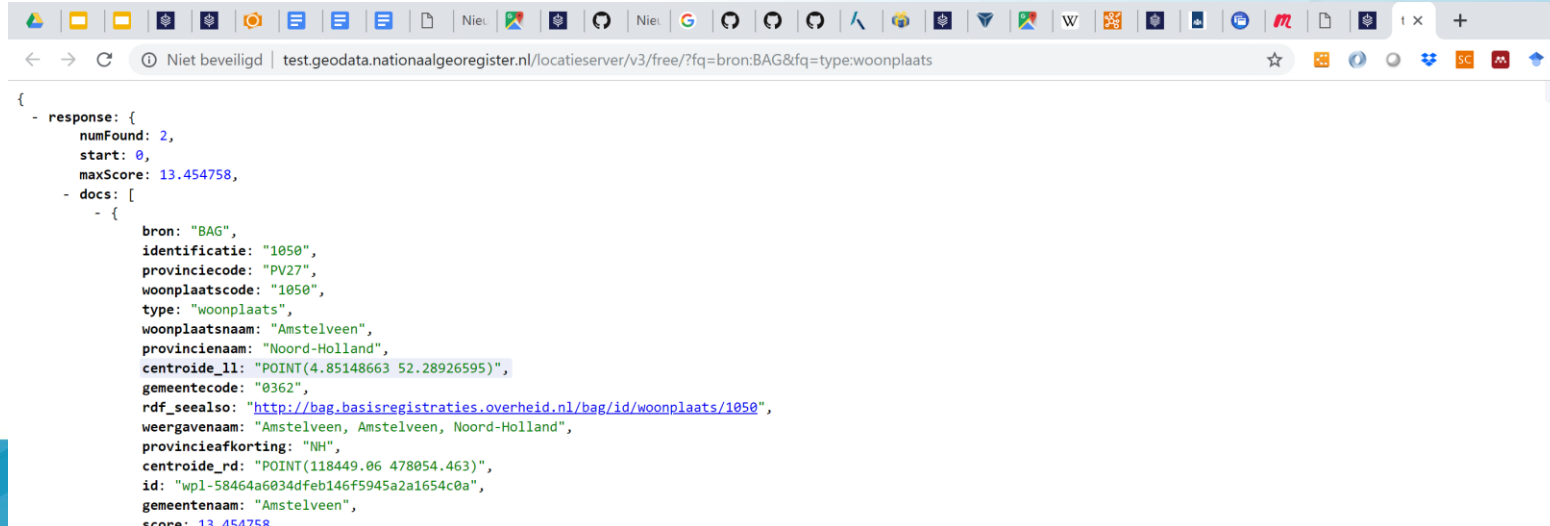

Niet beveiligd | www.irisa.fr/LIS/ferre/sparklis/osparklis.html?title=PDOK&endpoint=https%3A//data.pdok.nl/sparql&entity_lexicon_select=http%3A//www...
Sparklis
SPARQL endpoint
https://data.pdok.nl/sparql
Go
PDOK
Configureren
Leer meer
YASGUI view
Permalink
Uw query en zijn huidige focus (Klik op verschillende delen van de query om deze te wijzingen)
geef mij alles
Sparklis suggesties om uw query te verfijnen
Typen en Relaties van de object
komt overeen ..
iedere Top10nl object
iedere functioneel gebied
iedere gebouw
iedere bezoekerscentrum
iedere boortoren
iedere brandtoren
iedere brandweerkazerne
iedere bunker
iedere fort
afnemende frequentie
594+ items
Identiteiten of Waarden van de object
komt overeen al
A wegnummer
aanlegsteiger (inrichtingselement)
aantal rijstroken
aantal sporen
aantalinwoners
afritnaam
afritnummer
asWKT
afnemende frequentie
200+ items
Aggregatien en Operatoren
komt overeen ...
nee item
Resultaten van uw query
Tafel
Kaart
Diavoorstelling
nee resultaat
Toon
10
resultaten

Integration with existing PDOK services

- BAG WFS has rdf_seealso implemented
  (featuretype contains URI link through 'rdf_seealso')
- PDOK Locatie server is now kind of URI lookup service

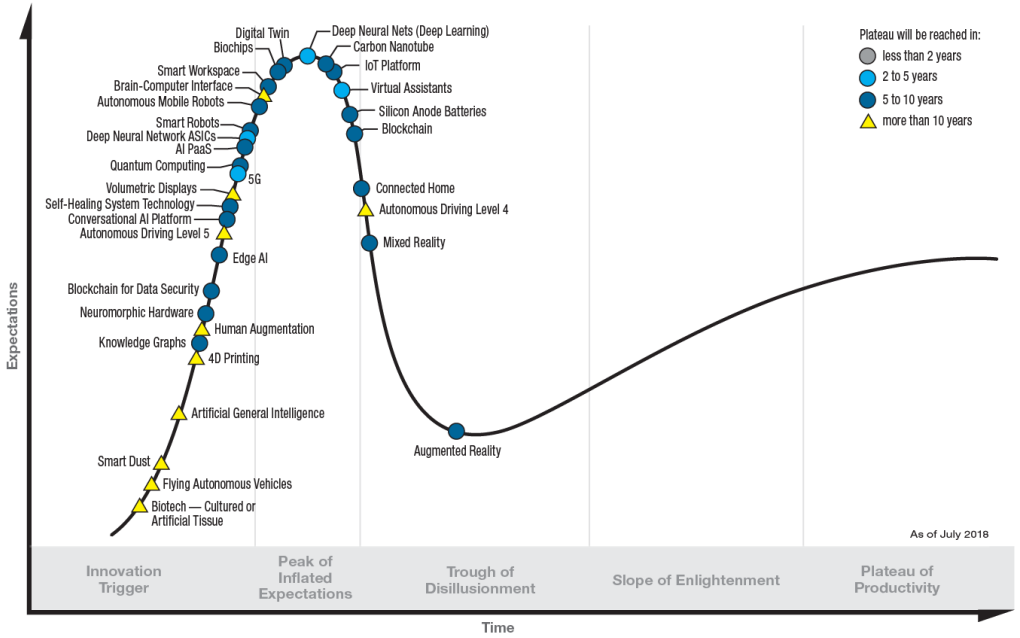


The Future

What is missing: connected datasets

What is another word for connected linked data sets?

Hype Cycle for Emerging Technologies, 2018



gartner.com/SmarterWithGartner

Source: Gartner (August 2018)
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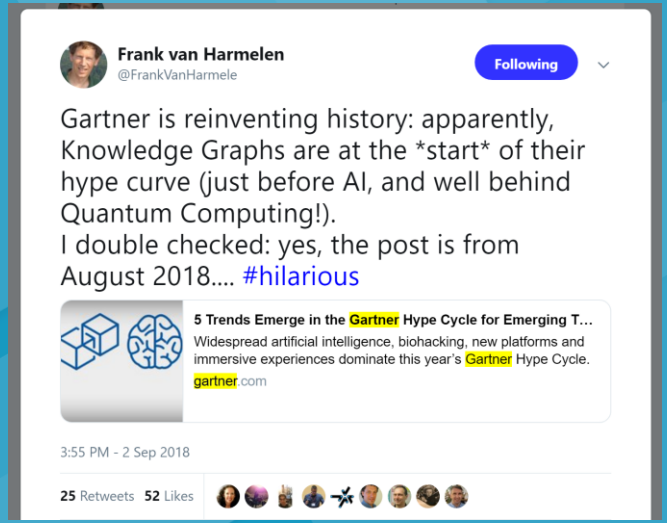
Gartner



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Data Scie | Use case | Linked Ge | Aanmeldi | Track des | CFP | Track Des | Shared w | BusValue | Is The Ent | Nieuw tabbla
https://www.forbes.com/sites/danwoods/2018/09/19/is-the-enterprise-knowledge-graph-going-to-finally-make-all-data-usable/#62fe1a827d39
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Is The Enterprise Knowledge Graph Finally Going To Make All Data Usable?

Dan Woods Contributor
Enterprise & Cloud

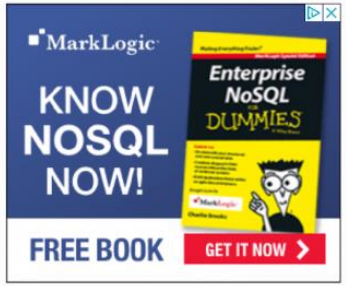
Ask your data EVOLVED MEDIA

When we ask Siri, Alexa or Google Home a question, we often get alarmingly relevant answers. Why? And more importantly, why don't we get the same quality of answers and smooth experience in our businesses where the stakes are so much higher?

The answer is that these services are all powered by extensive knowledge graphs that allow the questions to be mapped to an organized set of information that can often provide the answer we want.

Is it impossible for anyone but the big tech companies to organize information and deliver a pleasing experience? In my view, the answer is no. The technology to collect and integrate data so we can know more about our businesses is being delivered in different ways by a number of products. Only a few use constructs similar to a knowledge graph.

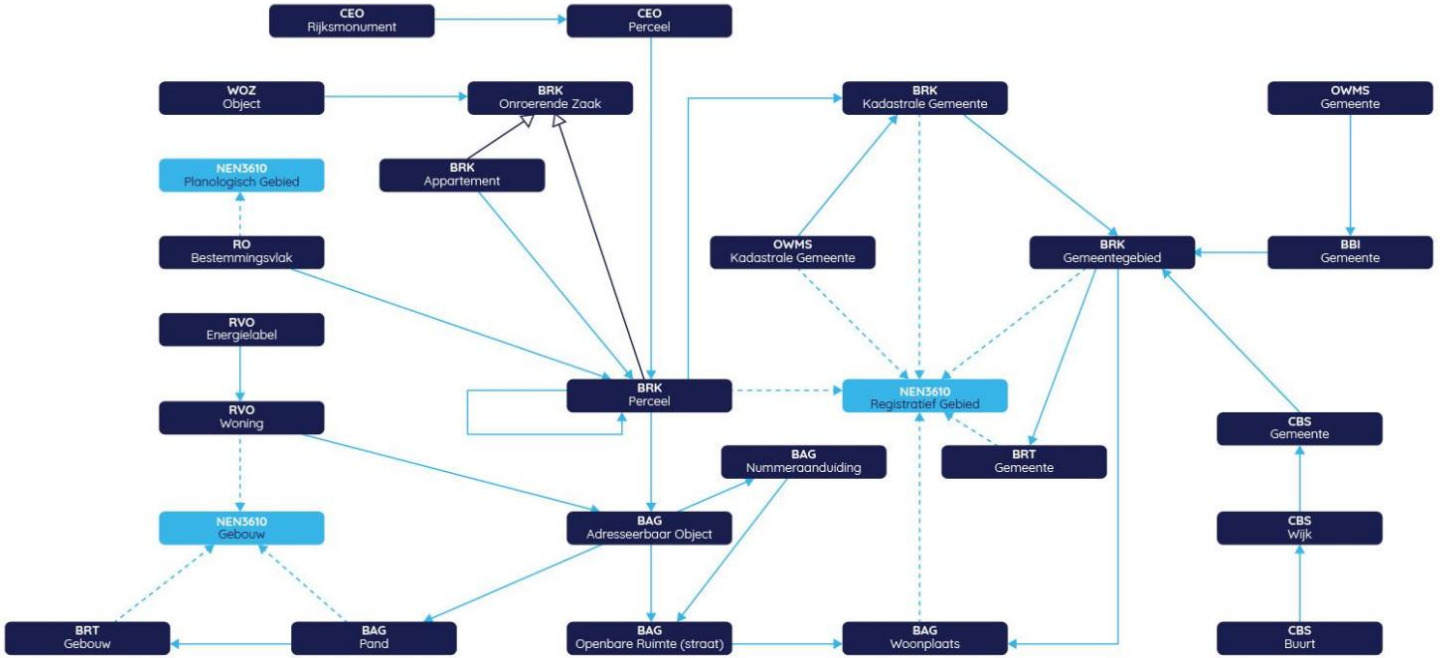
But one company I have been studying this year, Cambridge Semantics,



BETA

Cookies on Forbes

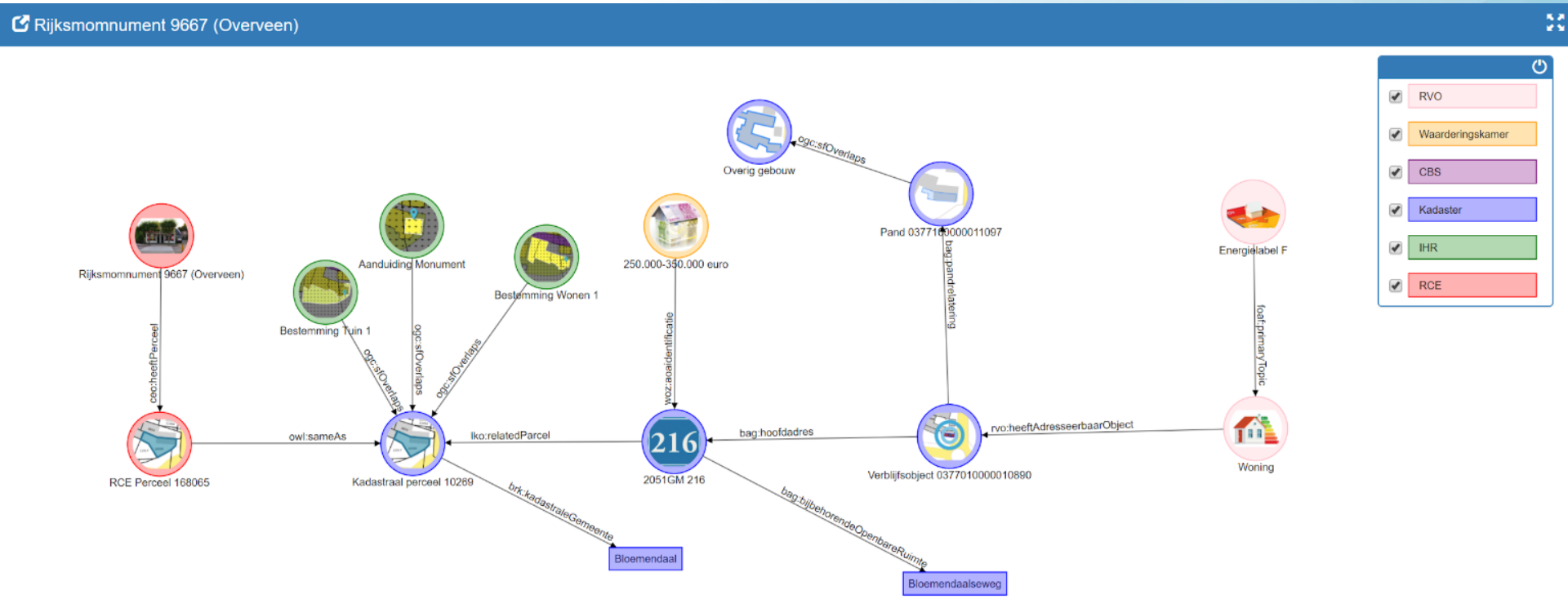
Knowledge Graph pdok



powered by kadaster

Demo 1: KG – Instance Browser

https://data.labs.pdok.nl/stories/PDKG/



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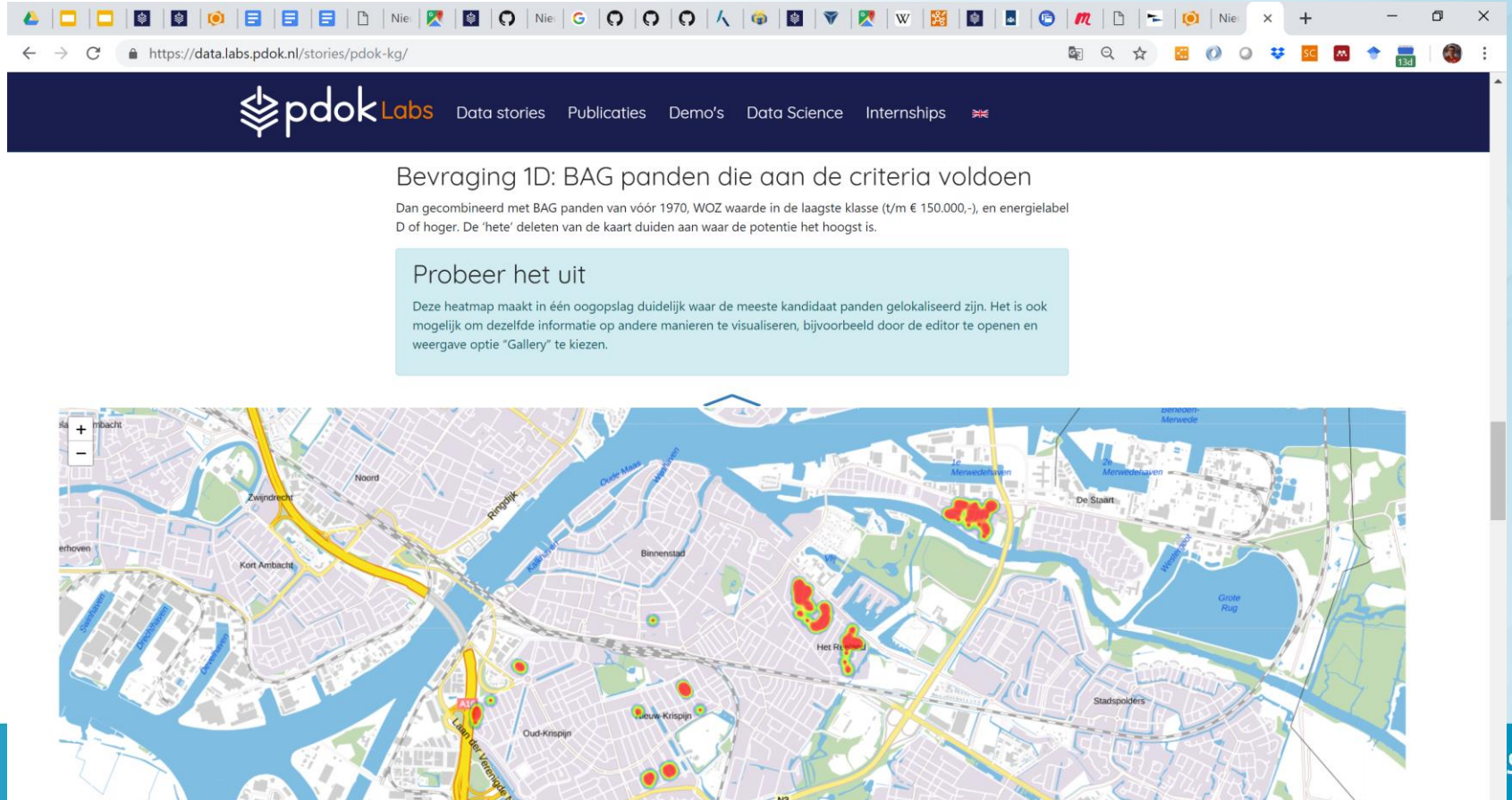
Demo 2: Federated Queries in KG

https://data.labs.pdok.nl/stories/pdok-kg/



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